

The relationship between urban street configuration and office rent patterns in Berlin

APPENDIX F - GLOSSARY

PhD Thesis by Dr. Jake Desyllas

www.intelligentspace.com

About this thesis

This thesis presents a study of the influence of urban street configuration on the pattern of commercial office rents in Berlin. The hypothesis is that there is a relationship between the two, and that the alteration of the street network with reunification has precipitated a spatial reorganisation of office rents.

To read a full abstract and download other chapters, visit www.intelligentspace.com/news/desyllasthesis.htm.

Fathom™ is a trademark of Intelligent Space Partnership. Ordnance Survey®, OS MasterMap™, TOID™, Land-Line® and OSCAR® are trademarks or registered trademarks of Ordnance Survey, the national mapping agency of Great Britain. MapInfo® and MapInfo Professional® are registered trademarks of MapInfo Corporation. Other trademarks are the property of their respective owners. Copyright Intelligent Space Partnership 2004, unless otherwise stated. All rights are reserved. Permission is granted for the personal, non-commercial downloading, printing, transmission and temporary storage. Such permission does not allow for incorporation of material or any part of it in any work or publication, whether in hard copy, electronic, or any other form. All other use of the materials, in whole or in part (including without limitation reproduction, permanent storage, re-distribution and incorporation into other materials or web pages) is prohibited without the prior consent of Intelligent Space Partnership



Intelligent Space Partnership

81 Rivington Street, London EC2A 3AY

phone +44 (0) 20 7739 9729 fax +44 (0) 20 7739 9547 www.intelligentspace.com

Partners: Dr. Jake Desyllas B.A. M.Sc. Ph.D., Elspeth Duxbury B.Sc. M.S.c.

APPENDIX F: GLOSSARY

Asking Rent	The rent price advertised in the marketplace as a starting point for negotiations. No asking price data has been used as primary data in the empirical analysis of this thesis, but some secondary asking price information from Berlin property agents is evaluated in Chapter 5.
Axial Map	A simplification of the network of public space as the set of fewest and longest axes that link all the convex spaces of a continuous street system together.
Choropleth	Colour shading representing the attribute values of a phenomenon. This technique has a major advantage for the representation of spatial patterns because the use of colour does not distort the spatial pattern of the phenomenon in the way that isopleth representations can. This allows as detailed a spatial map as possible while simultaneously displaying the attribute values in their original location.
Consideration Rent	Consideration rent is the headline rent adjusted for the lease provisions that influence the value of the lease but without any discounted cash flow calculation. It is the average rent price per square metre per month for the jagged income flow of a lease with its incentives considered. In this thesis, this means the average rent price per square metre per month in 1991 prices of each year of the lease, after the particular incentives or provisions effective in each year have been deducted or added to the price. (see also: effective rent)
Effective Rent	As a general concept, effective rent is that rent which has the same net present cost to the tenant and the same net present value to the landlord as the package of rent plus incentives comprising the actual open market letting. However, the valuation of incentives and other lease provisions is complex and the subject of some debate, as discussed in Chapter 2. In this thesis, effective rent is the average Net Present Value of the consideration rent expressed in Deutsche Marks per square metre per month. A discount rate of 6% was used for the calculation of NPV, which was the average German interest rate for the period under consideration.
Floorspace Size	(see Unit Floorspace Size)
Headline Rent	The rent price recorded in a lease at the start of the lease term. In the German market, discussion of achieved rents refers to this figure, rather than the rent that is reached at the end of a lease. In this thesis the leases are German and so all headline rents are in Deutsche Marks per square metre per month. In the leases themselves, the nominal price at the date of lease signing is recorded (without adjustment for inflation, although adjustment of various kinds over the length of the lease term may be provided for in the lease- see effective rent). For all statistical purposes in this thesis unless explicitly declared otherwise, the nominal price has been adjusted to the real price expressed in constant 1991 prices.
Isopleth	A continuous surface interpolated from individual values, used to represent

changes in value. The technique is used in cartography and natural geography to map the form on the outside surface that encloses a geographic volume. It is normally used when the focus is on the attribute values at points on a truly continuous distribution, such as land elevation. Isarithms showing distributions of values that can be referenced to points (such as a point on a rented office floor) are called isometric lines. The surface can either be represented as contours on a plan view or explicitly as a three dimensional object in an axonometric view. Some of the theoretical problems of this approach when applied to rent data are discussed in chapter 7.

Lease Length	(see Obligatory Lease Length)
Lebenshaltungskostenindex	The cost of living index used in German office leases. It is a consumer inflation index, not a property market index. There are variations as to when the rent is first adjusted to this index and how often, the most common being in year 2 and every year afterwards.
Location Rent	As a general concept, location rent is the part of rent value that give rise to spatial differences in rents that cannot be explained by intervening variables and are assumed to be a premium for location. This normally means that alternative variables that could explain rent differentials have been controlled in some way as far as is possible. The remaining differential in rent that cannot be explained by the systematic influence of any other factor is thought to be location rent. The extent to which it is possible to determine location rent is highly dependent on the availability and quality of data for alternative factors. In this study, the residual from a 'location blind MRA' is used to create a proxy for location rent.
Location Blind Multiple Regression Analysis	A Multiple Regression Analysis that deliberately has no independent variables representing location. The purpose of this analysis is to produce a residual value in the rental data that is not attributable to any non-location variables, in order to arrive at a residual differential in rent that can be used as a proxy for location rent.
Nominal Rent Price	Any rent price that has not been adjusted for inflation with reference to a specific base year index. For all statistical purposes in this thesis unless explicitly declared otherwise, primary nominal rent data has been adjusted to real rents expressed in constant 1991 prices.
Obligatory Lease Length	The length of time in years specified in a lease that a tenant has occupancy of a unit, until the first point at which the tenant can choose to leave. This is effectively the period until the first break clause, rather than the maximum period that a tenant could choose to stay. This variable has been given the name <i>leaselength</i> in the regression models.
Optional Renewal Time	The total period after the obligatory lease length that a tenant may choose to remain under the same lease terms. First and subsequent renewal periods have been summed in this study. For example, a lease with two renewal periods of 5 years would have an optional renewal time of 10 years. This variable has been given the name <i>optiontotal</i> in the regression models of this thesis.

Pre-Letting Time	The period in of time between the date of the lease signature and the start date of occupancy.
Real Rent Price	A rental value expressed in constant prices that have been adjusted for inflation. For all statistical purposes in this thesis unless explicitly declared otherwise, primary nominal rent data has been adjusted to real rents expressed in constant 1991 prices.
Renewal Period	(see Optional Renewal Time)
Rent Multipliers	Lease clauses that allow for the adjustment of rent over the length of the lease with reference to either an independent variable index or a fixed multiplier, to offset the depreciation that comes from inflation. This variable has been given the name <i>appreciation%</i> in the database. Index multipliers (or any variable index) must be used both upwards and downwards in adjusting rents according to German law.
Rent Pattern	Spatial differences in rents that cannot be explained by intervening variables and are assumed to be a premium for location
Space Syntax	A research programme investigating the role of spatial configuration as an independent variable in social systems. A number of analysis techniques have been developed in this programme, including the axial map representation and integration measures used in this thesis.
Step Additions	Yearly additions to the rent over the course of the lease length. The simplest example would be an increase of x DM per square metre per year. More complex might be a varying amount added to the price per square metre each year or an amount added once only or at arbitrary times during the lease. In some cases a fixed <i>decrease</i> takes place in the first year and in very few cases a fixed decrease is specified for later years.
Unit Floorspace Size	The leased area of office space and the share of communal space (always charged at the same price) in square metres taken by the tenant. Garages or other use spaces were excluded from the primary lease data used in this thesis.
Urban Street Configuration	The layout of the street network in which people move around. It is the morphology of streets and public spaces considered as a whole spatial system.